

26, 2000, an article by Neuman et al., entitled "Pressure Dependence of the Resistance of VO_2 " was presented (Journal of Chemical Physics, Vol. 41, No. 6, September 15, 1964.

The comments made in the Advisory Action mailed October 10, 2000, suggest there is a misunderstanding about the Neuman reference, particularly relating to the temperature dependency of the conductivity of vanadium oxide (VO_2). In Figure 1 of that article, which shows the temperature dependency, the abscissa indicates a thousand times the reciprocal of temperature ($1000/\text{temperature}$); the right side and left side are indicative of low temperature and high temperature, respectively. As shown, conductivity is low at the right-hand side (low temperature side), but is high at the left hand side (high temperature side) with respect to 0.00294 (340 K) or so. This is entirely contrary to the Benson reference at column 3, lines 24-28.

It can be concluded that Benson et al., also misunderstood the paper of Neuman et al. Although the Benson reference may be accidentally based on the same principal of the present invention, it is not practicable when it comes to VO_2 .

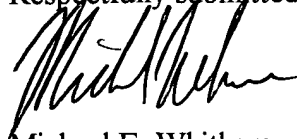
The Okamoto reference (Japanese Patent Laid-Open Publication No. 1-212699) also uses the above characteristic of VO_2 , but it causes it to function in exactly the opposite way of the present invention, i.e., to suppress heat transfer at high temperature and to promote it at low temperature.

The substance to which the present invention pertains is extremely rare in that it has a transition point around normal temperature and has conductivity which is low at a high temperature side, but high at a low temperature side.

In view of these comments and further review of the request for reconsideration filed September 26, 2000, it is respectfully submitted that the claimed invention is not obvious over any combination of references of record in the case.

Reconsideration and allowance of the claims at an early date is requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Michael E. Whitham", written over the typed name.

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